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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/736,625	12/17/2003	Remy Synnott	2993-497US RM/JR/as	4066
32292	7590	06/06/2005	EXAMINER	
OGILVY RENAULT LLP (PWC) 1981 MCGILL COLLEGE AVENUE SUITE 1600 MONTREAL, QC H3A 2Y3 CANADA			WHITE, DWAYNE J	
			ART UNIT	PAPER NUMBER
			3745	

DATE MAILED: 06/06/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/736,625

Applicant(s)

SYNNOTT ET AL.

Examiner

Dwayne J. White

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 09 May 2005.
2a) ☒ This action is FINAL. 2b) ☐ This action is non-final.
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-12 is/are pending in the application.
4a) Of the above claim(s) _____ is/are withdrawn from consideration.
5) ☐ Claim(s) _____ is/are allowed.
6) ☒ Claim(s) 1-12 is/are rejected.
7) ☐ Claim(s) _____ is/are objected to.
8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
10) ☒ The drawing(s) filed on 09 May 2005 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Response to Amendment

Applicant's arguments dated (insert date) have been fully considered but have deemed non-persuasive. Claims 1-12 are pending.

Applicant generally states that the assemblies of Ito (4,946,346) and Beeck et al. (6,565,317) are less efficient or effective than the instant invention. While this may be true, Applicant's amended claims still do not recite a structure that is patentable distinct from the prior art devices. Particularly, Applicant has amended the claims to recited that the vane assemblies directly receive cooling are from the cooling air source. Both vane assemblies of Ito and Beeck et al. directly receive cooling air from the cool air source which is channeled through the cooling holes both upstream and down stream of the on the platforms.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1, 3-11 are rejected under 35 U.S.C. 102(b) as being anticipate by Ito (4,946,346).

Ito discloses a vane assembly for a gas turbine engine comprising a plurality of airfoils 21 radially extending between inner and outer platforms 23 and 22 defining an annular gas path therebetween, wherein a plurality of holes 36 are defined in at least one of the inner and outer platforms in a region substantially intermediate adjacent airfoils and on either side of the airfoils. The holes provide fluid flow communication between the cooling air source and the gas path and

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directing cooling airflow such that effusion cooling of the vane assembly is provided. The cooling holes are disposed in the longitudinal fluid flow direction between the leading and trailing edges of the airfoils and are distributed asymmetrically (See Figure 2). Further the holes are concentrated in a manner corresponding to regions of highest gas flow temperatures (Column 4, lines 57-65) and are inclined downstream (Column 4, line 10).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Beeck et al (6,565,317). Beeck et al. disclose a cooled blade assembly for a gas turbine engine comprising an airfoils 4 radially having a platform 3, wherein a plurality of holes 12 are defined in the platform in a region substantially intermediate adjacent airfoils and on either side of the airfoil. The holes provide fluid flow communication between the cooling air source and the gas path and directing cooling airflow such that effusion cooling of the blade assembly is provided. The cooling holes are disposed in the longitudinal fluid flow direction between the leading and trailing edge (See Figure 1). Beeck et al. further disclose distribution of the cooling holes where they are most needed (Column 3, lines 59-62). It is the position of the Examiner that the cooling holes of Beeck et al. could be distributed substantially evenly if, as stated in the disclosure, it would achieve the desired cooling effect. While Beeck et al. does not specifically state that the

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assembly is used in a vane assembly having inner and outer platforms; it does state that the cooling scheme can be used wherever "plate like" projecting components are exposed to high thermal loads. Therefore it is the position of the Examiner that invention of Beeck et al. can be applied to both an inner and outer platform as claimed by Applicant.

CONCLUSION

Contact Information

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

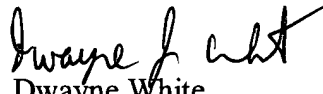
A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Dwayne J. White whose telephone number is (571) 272-4825. The examiner can normally be reached on 7:30 am to 5 pm T-F and alternate Mondays.


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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Edward Look can be reached on (571) 272-4820. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


Dwayne White
Patent Examiner
Art Unit 3745

DJW


EDWARD K. LOOK
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 3700
5/31/05